<110> Rosen et al.

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<213> Homo sapiens

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<211> 619
<212> DNA
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<210> 20
<211> 736

<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (701)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (728)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (733)
<223> n equals a,t,g, or c

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cccagctatt ccatctgtgg atgaaagtaa caatgttggc cacgtatatt ttacacctcg 660
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<210> 21
<211> 1688
<212> DNA
<213> Homo sapiens

<400> 21
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gaaaacac 1688

<210> 22
<211> 2045
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (2040)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (2041)
<223> n equals a,t,g, or c

<400> 22
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aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaan 2040
naaaa 2045

<210> 23
<211> 1101
<212> DNA
<213> Homo sapiens

<400> 23
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<210> 24
<211> 1659
<212> DNA
<213> Homo sapiens

<400> 24
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<210> 25
<211> 1329
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (520)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1140)
<223> n equals a,t,g, or c

<400> 25
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acatcatcat cttcctcact ggcctccctg ccaacctcct ggccctgcgg gcctttgtgg 180
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<210> 26
<211> 700
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (81)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (659)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (692)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (700)
<223> n equals a,t,g, or c

<400> 26
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ggctgaaagt ctgaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaana 660
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa angggggggn 700

<210> 27
<211> 832
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (821)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (825)
<223> n equals a,t,g, or c

<400> 27
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<210> 28
<211> 2361
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (2361)
<223> n equals a,t,g, or c

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<212> DNA
<213> Homo sapiens

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<211> 3259
<212> DNA
<213> Homo sapiens

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<211> 454
<212> DNA
<213> Homo sapiens

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<210> 33
<211> 230
<212> DNA
<213> Homo sapiens

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<223> n equals a,t,g, or c

<220>
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<222> (219)
<223> n equals a,t,g, or c

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<210> 34
<211> 753
<212> DNA
<213> Homo sapiens

<400> 34
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<211> 1022
<212> DNA
<213> Homo sapiens

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<213> Homo sapiens

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<211> 541
<212> DNA
<213> Homo sapiens

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<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (530)
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<400> 37
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<210> 38
<211> 1752
<212> DNA
<213> Homo sapiens

<220>
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<222> (356)
<223> n equals a,t,g, or c

<400> 38
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aaaaaaagaa aa 1752

<210> 39
<211> 1907
<212> DNA
<213> Homo sapiens

<400> 39
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<210> 40
<211> 2350
<212> DNA
<213> Homo sapiens

<400> 40
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atgtgtatcc gaaaagggaa gagaatggtt gcccgtattc ttcctttcct ctccacagag 180
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<211> 1114
<212> DNA
<213> Homo sapiens

<400> 41
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aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 1114

<210> 42
<211> 1652
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (1640)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1644)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1648)
<223> n equals a,t,g, or c

<400> 42
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<210> 43
<211> 1473
<212> DNA

<213> Homo sapiens

<400> 43
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<210> 44
<211> 772
<212> DNA
<213> Homo sapiens

<400> 44
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<210> 45
<211> 403
<212> DNA
<213> Homo sapiens

<220>
<221> SITE

<222> (15)
<223> n equals a,t,g, or c

<400> 45
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cggcatgagt ggaggtggat ggcgtgggat gtactgaaag caaaaacacc aacatacaag 240
tcttgacaac agcatctggt ctactagact ttcttacaga tttaatttct tttgtatttt 300
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<210> 46
<211> 928
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (49)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (78)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (148)
<223> n equals a,t,g, or c

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<221> SITE
<222> (163)
<223> n equals a,t,g, or c

<220>
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<222> (532)
<223> n equals a,t,g, or c

<400> 46
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<210> 47
<211> 885
<212> DNA
<213> Homo sapiens

<400> 47
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gttcataggt tctcatccct cacccccac cacgggagac tagagctgca ggatcccagg 780
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<210> 48
<211> 2315
<212> DNA
<213> Homo sapiens

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<222> (2264)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (2312)
<223> n equals a,t,g, or c

<220>
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<222> (2315)
<223> n equals a,t,g, or c

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aatactgtta tgttactctt acttgtttac atgagttaac tagaaaatgg ctacaactgc 180
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tagtctccac attatggaat cactgccacc tctgggacgg agggagcagc cgcataacac 600

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caccgcggtg gagctccag ctttggttc cctttagtga ggggttaatt tcgagcttgg        2220
cggtaatcat gggtcatagc ttgtttcctg gtgttgaaat tggntatccc gctcacaaat      2280
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<210> 49
<211> 3175
<212> DNA
<213> Homo sapiens

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gataactaag actatcaact ttgatttcta aaatgtaatt taaaggtttg taaaacaagg      180
ccactactat aattatataa tattaaagta attaagtttt atgttagtta ttttaataac      240
aacttcatga actgttaaaa atattacatt tgcatctctc agtttacata tttctgtatt      300
aacttggaga aaaacccatg tgaaaagttt ccatgcagtt acaaaggcag cagcacatgc      360
tgttttcaca gcaacttgtt attgcctcag aacaggcctg cactaaagca tcaacaaaaa      420
atacccacca ccccactccc accagaaaac ccaaccctta cccatccccg gcaaaaatta      480
cctggtacaa gcaatgacct aaaaatgctt tcttggtaag aagcatttat aaaatgcaga      540
gatctgaaca agctaagtgc tcgtgcagat acatgggcct ctcctccaag agttggttcc      600
gcaagaggtg gaaagaactc tcaatagttt aggaaagctc attttcaaaa gtatacttac      660
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<211> 783
<212> DNA
<213> Homo sapiens

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aat 783

<210> 51
<211> 3030

<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (60)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (2388)
<223> n equals a,t,g, or c

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<210> 52
<211> 61
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (58)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 52

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Met Glu His Ala Ala Gly Leu Pro Val Thr Arg His Pro Leu Ala Leu
  1               5                  10                  15

Leu Leu Ala Leu Cys Pro Gly Pro Phe Pro Ala Leu Leu Leu Pro Leu
            20                  25                  30

Leu Pro Trp Gly Tyr Pro Leu Ala Pro Pro Gly Leu Cys Lys Leu Pro
        35                  40                  45

Gln Gly Ala Pro Leu Pro Cys Ser Ser Xaa Leu Thr Ser
    50                  55                  60
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<210> 53
<211> 243
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (15)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (190)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 53

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Met Asp Gln Tyr Cys Ile Leu Gly Arg Ile Gly Glu Gly Ala Xaa Gly
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Ile Val Phe Lys Ala Lys His Val Glu Thr Gly Glu Ile Val Ala Leu
            20                  25                  30

Lys Lys Val Ala Leu Arg Arg Leu Glu Asp Gly Phe Pro Asn Gln Ala
        35                  40                  45
```

```
Leu Arg Glu Ile Lys Ala Leu Gln Glu Met Glu Asp Asn Gln Tyr Val
     50                  55                  60

Val Gln Leu Lys Ala Val Phe Pro His Gly Gly Gly Phe Val Leu Ala
 65                  70                  75                  80

Phe Glu Phe Met Leu Ser Asp Leu Ala Glu Val Val Arg His Ala Gln
                 85                  90                  95

Arg Pro Leu Ala Gln Ala Gln Val Lys Ser Tyr Leu Gln Met Leu Leu
            100                 105                 110

Lys Gly Val Ala Phe Cys His Ala Asn Asn Ile Val His Arg Asp Leu
        115                 120                 125

Lys Pro Ala Asn Leu Leu Ile Ser Ala Ser Gly Gln Leu Lys Ile Ala
    130                 135                 140

Asp Phe Gly Leu Ala Arg Val Phe Ser Pro Asp Gly Ser Arg Leu Tyr
145                 150                 155                 160

Thr His Gln Val Ala Thr Arg Ser Ser Leu Ser Cys Arg Thr Thr Thr
                165                 170                 175

Arg Ser Pro Leu Arg Ser Arg Cys Pro Cys Pro Trp Arg Xaa Cys Cys
            180                 185                 190

Leu Thr Ser Leu Pro Arg His Trp Ile Cys Trp Val Asn Ser Phe Ser
        195                 200                 205

Thr Leu Leu Thr Ser Ala Ser Gln Leu Pro Arg Leu Ser Ser Ile Ser
    210                 215                 220

Thr Ser Ser Gln Leu Pro Cys Leu Pro Ile His Leu Ser Cys Arg Phe
225                 230                 235                 240

Leu Ser Val
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<210> 54
<211> 65
<212> PRT
<213> Homo sapiens

<400> 54

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Met Glu Ala Lys Phe Gly Leu Leu Cys Phe Leu Val Ser Thr Pro Trp
  1               5                  10                  15

Ala Glu Leu Leu Ser Leu Leu Leu His Leu Thr Gln Val Pro Phe Pro
            20                  25                  30

Gly Ser Gln Gly Leu Gly Leu Asn Asn Cys Arg Ala Ala Cys His Asp
        35                  40                  45

Leu Ser His Leu Leu Leu Ser His Ser Ala Ile Asn Gln Thr Lys Glu
     50                  55                  60
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Phe
65

<210> 55
<211> 37
<212> PRT
<213> Homo sapiens

<400> 55
Met Leu Ala Arg Lys Ala Glu Arg Gly Ser Met Gly Thr Ala Arg Asp
1 5 10 15

Ser His Ile Leu Leu Val Cys Ser Val Val His Pro Ala Ser Ala Gln
20 25 30

Pro Val Tyr Thr Val
35

<210> 56
<211> 317
<212> PRT
<213> Homo sapiens

<400> 56
Met Leu Ser Phe Lys Leu Leu Leu Leu Ala Val Ala Leu Gly Phe Phe
1 5 10 15

Glu Gly Asp Ala Lys Phe Gly Glu Arg Asn Glu Gly Ser Gly Ala Arg
20 25 30

Arg Arg Arg Cys Leu Asn Gly Asn Pro Pro Lys Arg Leu Lys Arg Arg
35 40 45

Asp Arg Arg Met Met Ser Gln Leu Glu Leu Leu Ser Gly Gly Glu Met
50 55 60

Leu Cys Gly Gly Phe Tyr Pro Arg Leu Ser Cys Cys Leu Arg Ser Asp
65 70 75 80

Ser Pro Gly Leu Gly Arg Leu Glu Asn Lys Ile Phe Ser Val Thr Asn
85 90 95

Asn Thr Glu Cys Gly Lys Leu Leu Glu Glu Ile Lys Cys Ala Leu Cys
100 105 110

Ser Pro His Ser Gln Ser Leu Phe His Ser Pro Glu Arg Glu Val Leu
115 120 125

Glu Arg Asp Leu Val Leu Pro Leu Leu Cys Lys Asp Tyr Cys Lys Glu
130 135 140

Phe Phe Tyr Thr Cys Arg Gly His Ile Pro Gly Phe Leu Gln Thr Thr
145 150 155 160

Ala Asp Glu Phe Cys Phe Tyr Tyr Ala Arg Lys Asp Gly Gly Leu Cys
165 170 175

```
Phe Pro Asp Phe Pro Arg Lys Gln Val Arg Gly Pro Ala Ser Asn Tyr
            180                 185                 190

Leu Asp Gln Met Glu Glu Tyr Asp Lys Val Glu Glu Ile Ser Arg Lys
        195                 200                 205

His Lys His Asn Cys Phe Cys Ile Gln Glu Val Val Ser Gly Leu Arg
    210                 215                 220

Gln Pro Val Gly Ala Leu His Ser Gly Asp Gly Ser Gln Arg Leu Phe
225                 230                 235                 240

Ile Leu Glu Lys Glu Gly Tyr Val Lys Ile Leu Thr Pro Glu Gly Glu
                245                 250                 255

Ile Phe Lys Glu Pro Tyr Leu Asp Ile His Lys Leu Val Gln Ser Gly
            260                 265                 270

Ile Lys Val Gly Phe Leu Asn Phe Ile Tyr Phe Cys Ala Gly Tyr Val
        275                 280                 285

Asn Phe Ile Leu Val Leu Pro Ser Ser Leu Lys Val Phe Leu Cys Asn
    290                 295                 300

Lys Arg Lys Asn Leu Ala Gly Glu Asn Lys Gly Ala Thr
305                 310                 315
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<210> 57
<211> 41
<212> PRT
<213> Homo sapiens

<400> 57

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Met Ser Trp Gly Ile Trp Lys Gly Leu Asp Leu Phe Pro Leu Ile Lys
  1               5                  10                  15

Gly Asn Ser Ser Leu Cys Leu Phe Leu Leu Val Val Pro Lys Gly Tyr
            20                  25                  30

Ser Ser Ser Glu Ile Thr Arg Ala Leu
        35                  40
```

<210> 58
<211> 57
<212> PRT
<213> Homo sapiens

<400> 58

```
Met Ser Leu Pro Cys His Leu Leu Pro Gly Leu Leu Gln Gln Leu Leu
  1               5                  10                  15

Thr Ser Leu Pro Ala Phe Gln Phe Ser Ala Pro Leu Gln Val Phe Ser
            20                  25                  30

Leu Asp Gly Leu Ser Leu Pro Ala Pro Lys Leu Leu Thr Ala Ser Leu
```

35 40 45

Cys Leu Gln Asp Glu Val Arg Ala Val
50 55

<210> 59
<211> 52
<212> PRT
<213> Homo sapiens

<400> 59
Met Ser Ser Trp Pro Phe Cys Pro Ser Leu Cys Phe Ser Leu Ser Asn
1 5 10 15

Leu Ile Pro Gly Ser Gly Leu Leu Pro Val Glu Thr Gly Glu Leu Gly
20 25 30

Leu Leu Ser Ala Ala Tyr Leu Leu Pro Phe Thr Cys Ile Gln Leu Leu
35 40 45

Gly Leu Gly Pro
50

<210> 60
<211> 296
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (281)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 60
Met Ala Val Leu Ala Pro Leu Ile Ala Leu Val Tyr Ser Val Pro Arg
1 5 10 15

Leu Ser Arg Trp Leu Ala Gln Pro Tyr Tyr Leu Leu Ser Ala Leu Leu
20 25 30

Ser Ala Ala Phe Leu Leu Val Arg Lys Leu Pro Pro Leu Cys His Gly
35 40 45

Leu Pro Thr Gln Arg Glu Asp Gly Asn Pro Cys Asp Phe Asp Trp Arg
50 55 60

Glu Val Glu Ile Leu Met Phe Leu Ser Ala Ile Val Met Met Lys Asn
65 70 75 80

Arg Arg Ser Ile Thr Val Glu Gln His Ile Gly Asn Ile Phe Met Phe
85 90 95

Ser Lys Val Ala Asn Thr Ile Leu Phe Phe Arg Leu Asp Ile Arg Met
100 105 110

Gly Leu Leu Tyr Ile Thr Leu Cys Ile Val Phe Leu Met Thr Cys Lys

```
        115                 120                 125

Pro Pro Leu Tyr Met Gly Pro Glu Tyr Ile Lys Tyr Phe Asn Asp Lys
    130                 135                 140

Thr Ile Asp Glu Glu Leu Glu Arg Asp Lys Arg Val Thr Trp Ile Val
145                 150                 155                 160

Glu Phe Phe Ala Asn Trp Ser Asn Asp Cys Gln Ser Phe Ala Pro Ile
                165                 170                 175

Tyr Ala Asp Leu Ser Leu Lys Tyr Asn Cys Thr Gly Leu Asn Phe Gly
            180                 185                 190

Lys Val Asp Val Gly Arg Tyr Thr Asp Val Ser Thr Arg Tyr Lys Val
        195                 200                 205

Ser Thr Ser Pro Leu Thr Lys Gln Leu Pro Thr Leu Ile Leu Phe Gln
    210                 215                 220

Gly Gly Lys Glu Ala Met Arg Arg Pro Gln Ile Asp Lys Lys Gly Arg
225                 230                 235                 240

Ala Val Ser Trp Thr Phe Ser Glu Glu Asn Val Ile Arg Glu Phe Asn
                245                 250                 255

Leu Asn Glu Leu Tyr Gln Arg Ala Lys Lys Leu Ser Lys Ala Gly Asp
            260                 265                 270

Asn Ile Pro Glu Glu Gln Pro Val Xaa Ser Thr Pro Thr Thr Val Ser
        275                 280                 285

Asp Gly Glu Asn Lys Lys Asp Lys
    290                 295


<210> 61
<211> 100
<212> PRT
<213> Homo sapiens

<400> 61
Met Arg Ala Phe Arg Lys Asn Lys Thr Leu Gly Tyr Gly Val Pro Met
  1               5                  10                  15

Leu Leu Leu Ile Val Gly Gly Ser Phe Gly Leu Arg Glu Phe Ser Gln
            20                  25                  30

Ile Arg Tyr Asp Ala Val Lys Ser Lys Met Asp Pro Glu Leu Glu Lys
        35                  40                  45

Lys Leu Lys Glu Asn Lys Ile Ser Leu Glu Ser Glu Tyr Glu Lys Ile
    50                  55                  60

Lys Asp Ser Lys Phe Asp Asp Trp Lys Asn Ile Arg Gly Pro Arg Pro
65                  70                  75                  80

Trp Glu Asp Pro Asp Leu Leu Gln Gly Arg Asn Pro Glu Ser Leu Lys
```

85 90 95

Thr Lys Thr Thr
100

<210> 62
<211> 47
<212> PRT
<213> Homo sapiens

<400> 62
Met Ile Gln Leu Ile Leu Gln Phe Trp Tyr Leu Phe Ser Met Leu Leu
1 5 10 15

Lys Pro Val Gln Gln Cys Gln His Cys Ser Gln Ile Thr Pro Ser Gly
20 25 30

Thr Met Pro Thr Ser Glu Thr Val Phe Leu Ile Leu Phe Leu Pro
35 40 45

<210> 63
<211> 162
<212> PRT
<213> Homo sapiens

<400> 63
Met Lys Met Val Ala Pro Trp Thr Arg Phe Tyr Ser Asn Ser Cys Cys
1 5 10 15

Leu Cys Cys His Val Arg Thr Gly Thr Ile Leu Leu Gly Val Trp Tyr
20 25 30

Leu Ile Ile Asn Ala Val Val Leu Leu Ile Leu Leu Ser Ala Leu Ala
35 40 45

Asp Pro Asp Gln Tyr Asn Phe Ser Ser Ser Glu Leu Gly Gly Asp Phe
50 55 60

Glu Phe Met Asp Asp Ala Asn Met Cys Ile Ala Ile Ala Ile Ser Leu
65 70 75 80

Leu Met Ile Leu Ile Cys Ala Met Ala Thr Tyr Gly Ala Tyr Lys Gln
85 90 95

Arg Ala Ala Gly Ile Ile Pro Phe Phe Cys Tyr Gln Ile Phe Asp Phe
100 105 110

Ala Leu Asn Met Leu Val Ala Ile Thr Val Leu Ile Tyr Pro Asn Ser
115 120 125

Ile Gln Glu Tyr Ile Arg Gln Leu Pro Pro Asn Phe Pro Tyr Arg Asp
130 135 140

Asp Val Met Cys Ser Glu Ser Tyr Leu Phe Gly Pro Tyr Tyr Ser Ser
145 150 155 160

Val Tyr

<210> 64
<211> 335
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (35)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (297)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 64
Met Arg Gly Leu Gly Leu Trp Leu Leu Gly Ala Met Met Leu Pro Ala
1 5 10 15

Ile Ala Pro Ser Arg Pro Trp Ala Leu Met Glu Gln Tyr Glu Val Val
20 25 30

Leu Pro Xaa Arg Leu Pro Gly Pro Arg Val Arg Arg Ala Leu Pro Ser
35 40 45

His Leu Gly Leu His Pro Glu Arg Val Ser Tyr Val Leu Gly Ala Thr
50 55 60

Gly His Asn Phe Thr Leu His Leu Arg Lys Asn Arg Asp Leu Leu Gly
65 70 75 80

Ser Gly Tyr Thr Glu Thr Tyr Thr Ala Ala Asn Gly Ser Glu Val Thr
85 90 95

Glu Gln Pro Arg Gly Gln Asp His Cys Phe Tyr Gln Gly His Val Glu
100 105 110

Gly Tyr Pro Asp Ser Ala Ala Ser Leu Ser Thr Cys Ala Gly Leu Arg
115 120 125

Gly Phe Phe Gln Val Gly Ser Asp Leu His Leu Ile Glu Pro Leu Asp
130 135 140

Glu Gly Gly Glu Gly Gly Arg His Ala Val Tyr Gln Ala Glu His Leu
145 150 155 160

Leu Gln Thr Ala Gly Thr Cys Gly Val Ser Asp Asp Ser Leu Gly Ser
165 170 175

Leu Leu Gly Pro Arg Thr Ala Ala Val Phe Arg Pro Arg Pro Gly Asp
180 185 190

Ser Leu Pro Ser Arg Glu Thr Arg Tyr Val Glu Leu Tyr Val Val Val
195 200 205

```
Asp Asn Ala Glu Phe Gln Met Leu Gly Ser Glu Ala Ala Val Arg His
    210                 215                 220

Arg Val Leu Glu Val Val Asn His Val Asp Lys Leu Tyr Gln Lys Leu
225                 230                 235                 240

Asn Phe Arg Val Val Leu Val Gly Leu Glu Ile Trp Asn Ser Gln Asp
                245                 250                 255

Arg Phe His Val Ser Pro Asp Pro Ser Val Thr Leu Glu Asn Leu Leu
            260                 265                 270

Thr Trp Gln Ala Arg Gln Arg Thr Arg Arg His Leu His Asp Asn Val
        275                 280                 285

Gln Leu Ile Thr Gly Val Asp Phe Xaa Gly Thr Thr Val Gly Phe Ala
    290                 295                 300

Arg Val Ser Thr Met Cys Ser His Ser Ser Gly Ala Val Asn Gln Asp
305                 310                 315                 320

His Ser Lys Asn Pro Val Gly Val Ala Cys Thr Met Ala His Glu
                325                 330                 335
```

<210> 65
<211> 356
<212> PRT
<213> Homo sapiens

<400> 65

```
Met Asp Tyr Arg Gly Gly Asp Gly Thr Ser Met Asp Tyr Arg Gly Arg
  1               5                  10                  15

Glu Ala Pro His Met Asn Tyr Arg Asp Arg Asp Ala His Ala Val Asp
            20                  25                  30

Phe Arg Gly Arg Asp Ala Pro Pro Ser Asp Phe Arg Gly Arg Gly Thr
        35                  40                  45

Tyr Asp Leu Asp Phe Arg Gly Arg Asp Gly Ser His Ala Asp Phe Arg
    50                  55                  60

Gly Arg Asp Leu Ser Asp Leu Asp Phe Arg Ala Arg Glu Gln Ser Arg
65                  70                  75                  80

Ser Asp Phe Arg Asn Arg Asp Val Ser Asp Leu Asp Phe Arg Asp Lys
                85                  90                  95

Asp Gly Thr Gln Val Asp Phe Arg Gly Arg Gly Ser Gly Thr Thr Asp
            100                 105                 110

Leu Asp Phe Arg Asp Arg Asp Thr Pro His Ser Asp Phe Arg Gly Arg
        115                 120                 125

His Arg Ser Arg Thr Asp Gln Asp Phe Arg Gly Arg Glu Met Gly Ser
    130                 135                 140
```

Cys Met Glu Phe Lys Asp Arg Glu Met Pro Pro Val Asp Pro Asn Ile
145 150 155 160

Leu Asp Tyr Ile Gln Pro Ser Thr Gln Asp Arg Glu His Ser Gly Met
165 170 175

Asn Val Asn Arg Arg Glu Glu Ser Thr His Asp His Thr Ile Glu Arg
180 185 190

Pro Ala Phe Gly Ile Gln Lys Gly Glu Phe Glu His Ser Glu Thr Arg
195 200 205

Glu Gly Glu Thr Gln Gly Val Ala Phe Glu His Glu Ser Pro Ala Asp
210 215 220

Phe Gln Asn Ser Gln Ser Pro Val Gln Asp Gln Asp Lys Ser Gln Leu
225 230 235 240

Ser Gly Arg Glu Glu Gln Ser Ser Asp Ala Gly Leu Phe Lys Glu Glu
245 250 255

Gly Gly Leu Asp Phe Leu Gly Arg Gln Asp Thr Asp Tyr Arg Ser Met
260 265 270

Glu Tyr Arg Asp Val Asp His Arg Leu Pro Gly Ser Gln Met Phe Gly
275 280 285

Tyr Gly Gln Ser Lys Ser Phe Pro Glu Gly Lys Thr Ala Arg Asp Ala
290 295 300

Gln Arg Asp Leu Gln Asp Gln Asp Tyr Arg Thr Gly Pro Ser Glu Glu
305 310 315 320

Lys Pro Ser Arg Leu Ile Arg Leu Ser Gly Val Pro Glu Asp Ala Thr
325 330 335

Lys Glu Glu Ile Leu Asn Ala Phe Arg Thr Pro Asp Gly Met Pro Val
340 345 350

Lys Asn Cys Ser
355

<210> 66
<211> 125
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (55)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 66
Met Leu Ser Gln Pro Leu Val Gly Ala Gln Arg Arg Arg Arg Ala Val
1 5 10 15

```
Gly Leu Ala Val Val Thr Leu Leu Asn Phe Leu Val Cys Phe Gly Pro
            20                  25                  30

Tyr Asn Val Ser His Leu Val Gly Tyr His Gln Arg Lys Ser Pro Trp
        35                  40                  45

Trp Arg Ser Ile Ala Val Xaa Phe Ser Ser Leu Asn Ala Ser Leu Asp
    50                  55                  60

Pro Leu Leu Phe Tyr Phe Ser Ser Ser Val Val Arg Arg Ala Phe Gly
65                  70                  75                  80

Arg Gly Leu Gln Val Leu Arg Asn Gln Gly Ser Ser Leu Leu Gly Arg
                85                  90                  95

Arg Gly Lys Asp Thr Ala Glu Gly Thr Asn Glu Asp Arg Gly Val Gly
            100                 105                 110

Gln Gly Glu Gly Met Pro Ser Ser Asp Phe Thr Thr Glu
        115                 120                 125
```

<210> 67
<211> 77
<212> PRT
<213> Homo sapiens

<400> 67

```
Met Arg Leu Val Phe Phe Phe Gly Val Ser Ile Ile Leu Val Leu Gly
  1               5                  10                  15

Ser Thr Phe Val Ala Tyr Leu Pro Asp Tyr Arg Cys Thr Gly Cys Pro
            20                  25                  30

Arg Ala Trp Asp Gly Met Lys Glu Trp Ser Arg Arg Glu Ala Glu Arg
        35                  40                  45

Leu Val Lys Tyr Arg Glu Ala Asn Gly Leu Pro Ile Met Glu Ser Asn
    50                  55                  60

Cys Phe Asp Pro Ser Lys Ile Gln Leu Pro Glu Asp Glu
65                  70                  75
```

<210> 68
<211> 121
<212> PRT
<213> Homo sapiens

<400> 68

```
Met Arg Ile Met Leu Leu Phe Thr Ala Ile Leu Ala Phe Ser Leu Ala
  1               5                  10                  15

Gln Ser Phe Gly Ala Val Cys Lys Glu Pro Gln Glu Glu Val Val Pro
            20                  25                  30

Gly Gly Gly Arg Ser Lys Arg Asp Pro Asp Leu Tyr Gln Leu Leu Gln
        35                  40                  45
```

```
Arg Leu Phe Lys Ser His Ser Ser Leu Glu Gly Leu Leu Lys Ala Leu
     50                  55                  60

Ser Gln Ala Ser Thr Asp Pro Lys Glu Ser Thr Ser Pro Glu Lys Arg
 65                  70                  75                  80

Asp Met His Asp Phe Phe Val Gly Leu Met Gly Lys Arg Ser Val Gln
                 85                  90                  95

Pro Asp Ser Pro Thr Asp Val Asn Gln Glu Asn Val Pro Ser Phe Gly
            100                 105                 110

Ile Leu Lys Tyr Pro Pro Arg Ala Glu
        115                 120
```

<210> 69
<211> 26
<212> PRT
<213> Homo sapiens

<400> 69
```
Met Val Val Met Glu Val Leu Met Thr Met Val Ala Ile Ile Ile Thr
  1               5                  10                  15

Ala Met Gly Met Met Ala Leu Met Thr Glu
            20                  25
```

<210> 70
<211> 235
<212> PRT
<213> Homo sapiens

<400> 70
```
Met Pro Trp Val Leu Leu Leu Leu Thr Leu Leu Thr His Ser Ala Val
  1               5                  10                  15

Ser Val Val Gln Ala Gly Leu Thr Gln Pro Pro Ser Val Ser Lys Asp
            20                  25                  30

Leu Arg Gln Thr Ala Thr Leu Thr Cys Thr Gly Asn Asn Asn Asn Val
        35                  40                  45

Gly Asp Gln Gly Ala Ala Trp Leu Gln Gln His Gln Gly His Pro Pro
     50                  55                  60

Lys Leu Leu Ser Tyr Arg Asn Asn Asn Arg Pro Ser Gly Ile Ser Glu
 65                  70                  75                  80

Arg Leu Ser Ala Ser Arg Ser Gly Ala Thr Ser Ser Leu Thr Ile Thr
                 85                  90                  95

Gly Leu Gln Pro Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Tyr Asp
            100                 105                 110

Ser Ser Leu Ala Val Trp Met Phe Gly Gly Gly Thr Lys Leu Thr Val
```

```
        115                 120                 125

Leu Gly Gln Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser
    130                 135                 140

Ser Glu Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser
145                 150                 155                 160

Asp Phe Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser Ser
                165                 170                 175

Pro Val Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln Ser Asn
            180                 185                 190

Asn Lys Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp
        195                 200                 205

Lys Ser His Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr
    210                 215                 220

Val Glu Lys Thr Val Ala Pro Thr Glu Cys Ser
225                 230                 235


<210> 71
<211> 217
<212> PRT
<213> Homo sapiens

<400> 71
Met Asp Ser Gln Gln Ala Ser Gly Thr Ile Val Gln Ile Val Ile Asn
  1               5                  10                  15

Asn Lys His Lys His Gly Gln Val Cys Val Ser Asn Gly Lys Thr Tyr
            20                  25                  30

Ser His Gly Glu Ser Trp His Pro Asn Leu Arg Ala Phe Gly Ile Val
        35                  40                  45

Glu Cys Val Leu Cys Thr Cys Asn Val Thr Lys Gln Glu Cys Lys Lys
    50                  55                  60

Ile His Cys Pro Asn Arg Tyr Pro Cys Lys Tyr Pro Gln Lys Ile Asp
65                  70                  75                  80

Gly Lys Cys Cys Lys Val Cys Pro Glu Glu Leu Pro Gly Gln Ser Phe
                85                  90                  95

Asp Asn Lys Gly Tyr Phe Cys Gly Glu Glu Thr Met Pro Val Tyr Glu
            100                 105                 110

Ser Val Phe Met Glu Asp Gly Glu Thr Thr Arg Lys Ile Ala Leu Glu
        115                 120                 125

Thr Glu Arg Pro Pro Gln Val Glu Val His Val Trp Thr Ile Arg Lys
    130                 135                 140

Gly Ile Leu Gln His Phe His Ile Glu Lys Ile Ser Lys Arg Met Phe
```

145 150 155 160

Glu Glu Leu Pro His Phe Lys Leu Val Thr Arg Thr Thr Leu Ser Gln
165 170 175

Trp Lys Ile Phe Thr Glu Gly Glu Ala Gln Ile Ser Gln Met Cys Ser
180 185 190

Ser Arg Val Cys Arg Thr Glu Leu Glu Asp Leu Val Lys Val Leu Tyr
195 200 205

Leu Glu Arg Ser Glu Lys Gly His Cys
210 215

<210> 72
<211> 492
<212> PRT
<213> Homo sapiens

<400> 72
Met Lys Ala Phe His Thr Phe Cys Val Val Leu Leu Val Phe Gly Ser
1 5 10 15

Val Ser Glu Ala Lys Phe Asp Asp Phe Glu Asp Glu Glu Asp Ile Val
20 25 30

Glu Tyr Asp Asp Asn Asp Phe Ala Glu Phe Glu Asp Val Met Glu Asp
35 40 45

Ser Val Thr Glu Ser Pro Gln Arg Val Ile Ile Thr Glu Asp Asp Glu
50 55 60

Asp Glu Thr Thr Val Glu Leu Glu Gly Gln Asp Glu Asn Gln Glu Gly
65 70 75 80

Asp Phe Glu Asp Ala Asp Thr Gln Glu Gly Asp Thr Glu Ser Glu Pro
85 90 95

Tyr Asp Asp Glu Glu Phe Glu Gly Tyr Glu Asp Lys Pro Asp Thr Ser
100 105 110

Ser Ser Lys Asn Lys Asp Pro Ile Thr Ile Val Asp Val Pro Ala His
115 120 125

Leu Gln Asn Ser Trp Glu Ser Tyr Tyr Leu Glu Ile Leu Met Val Thr
130 135 140

Gly Leu Leu Ala Tyr Ile Met Asn Tyr Ile Ile Gly Lys Asn Lys Asn
145 150 155 160

Ser Arg Leu Ala Gln Ala Trp Phe Asn Thr His Arg Glu Leu Leu Glu
165 170 175

Ser Asn Phe Thr Leu Val Gly Asp Asp Gly Thr Asn Lys Glu Ala Thr
180 185 190

Ser Thr Gly Lys Leu Asn Gln Glu Asn Glu His Ile Tyr Asn Leu Trp

195 200 205

Cys Ser Gly Arg Val Cys Cys Glu Gly Met Leu Ile Gln Leu Arg Phe
210 215 220

Leu Lys Arg Gln Asp Leu Leu Asn Val Leu Ala Arg Met Met Arg Pro
225 230 235 240

Val Ser Asp Gln Val Gln Ile Lys Val Thr Met Asn Asp Glu Asp Met
245 250 255

Asp Thr Tyr Val Phe Ala Val Gly Thr Arg Lys Ala Leu Val Arg Leu
260 265 270

Gln Lys Glu Met Gln Asp Leu Ser Glu Phe Cys Ser Asp Lys Pro Lys
275 280 285

Ser Gly Ala Lys Tyr Gly Leu Pro Asp Ser Leu Ala Ile Leu Ser Glu
290 295 300

Met Gly Glu Val Thr Asp Gly Met Met Asp Thr Lys Met Val His Phe
305 310 315 320

Leu Thr His Tyr Ala Asp Lys Ile Glu Ser Val His Phe Ser Asp Gln
325 330 335

Phe Ser Gly Pro Lys Ile Met Gln Glu Glu Gly Gln Pro Leu Lys Leu
340 345 350

Pro Asp Thr Lys Arg Thr Leu Leu Phe Thr Phe Asn Val Pro Gly Ser
355 360 365

Gly Asn Thr Tyr Pro Lys Asp Met Glu Ala Leu Leu Pro Leu Met Asn
370 375 380

Met Val Ile Tyr Ser Ile Asp Lys Ala Lys Lys Phe Arg Leu Asn Arg
385 390 395 400

Glu Gly Lys Gln Lys Ala Asp Lys Asn Arg Ala Arg Val Glu Glu Asn
405 410 415

Phe Leu Lys Leu Thr His Val Gln Arg Gln Glu Ala Ala Gln Ser Arg
420 425 430

Arg Glu Glu Lys Lys Arg Ala Glu Lys Glu Arg Ile Met Asn Glu Glu
435 440 445

Asp Pro Glu Lys Gln Arg Arg Leu Glu Glu Ala Ala Leu Arg Arg Glu
450 455 460

Gln Lys Lys Leu Glu Lys Lys Gln Met Lys Met Lys Gln Ile Lys Val
465 470 475 480

Lys Ala His Val Lys Pro Ser Gln Arg Phe Glu Phe
485 490

<210> 73

<211> 36
<212> PRT
<213> Homo sapiens

<400> 73
Met Leu Phe Leu Cys Leu Leu Pro Ser Leu Phe Pro Pro Gly Leu Pro
1 5 10 15

Thr Thr His Tyr Ile Thr Ser Ile Cys Asn Gln Ser Cys Tyr His His
20 25 30

Cys Ala Arg Ala
35

<210> 74
<211> 74
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (7)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (71)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 74
Met Ala Glu Leu Leu Leu Xaa Val Leu Ser Val Gln Ser Ala Val His
1 5 10 15

Glu Val Glu Ala Asn Glu Gly Gly Lys Gln Ser His Thr Pro Ala His
20 25 30

Arg Gly Trp Asn Arg Arg Ala Ala Glu Val Arg Lys Ala Arg Leu Pro
35 40 45

Leu Gly Val Thr Val Gly Pro Arg Cys Arg His Ala Val His Pro Ser
50 55 60

Lys Gly Gly Ile Ser Ala Xaa Ala Val Leu
65 70

<210> 75
<211> 133
<212> PRT
<213> Homo sapiens

<400> 75
Met Gly Ser Ser Gly Leu Leu Ser Leu Leu Val Leu Phe Val Leu Leu
1 5 10 15

Ala Asn Val Gln Gly Pro Gly Leu Thr Asp Trp Leu Phe Pro Arg Arg
20 25 30

```
Cys Pro Lys Ile Arg Glu Glu Cys Glu Phe Gln Glu Arg Asp Val Cys
         35                  40                  45

Thr Lys Asp Arg Gln Cys Gln Asp Asn Lys Lys Cys Cys Val Phe Ser
     50                  55                  60

Cys Gly Lys Lys Cys Leu Asp Leu Lys Gln Asp Val Cys Glu Met Pro
 65                  70                  75                  80

Lys Glu Thr Gly Pro Cys Leu Ala Tyr Phe Leu His Trp Trp Tyr Asp
                 85                  90                  95

Lys Lys Asp Asn Thr Cys Ser Met Phe Val Tyr Gly Gly Cys Gln Gly
            100                 105                 110

Asn Asn Asn Asn Phe Gln Ser Lys Ala Asn Cys Leu Asn Thr Cys Lys
        115                 120                 125

Asn Lys Arg Phe Pro
    130


<210> 76
<211> 298
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (42)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (58)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 76
Met Ala Arg Arg Ser Arg His Arg Leu Leu Leu Leu Leu Leu Arg Tyr
  1               5                  10                  15

Leu Val Val Ala Leu Gly Tyr His Lys Ala Tyr Gly Phe Ser Ala Pro
            20                  25                  30

Lys Asp Gln Gln Val Val Thr Ala Val Xaa Tyr Gln Glu Ala Ile Leu
        35                  40                  45

Ala Cys Lys Thr Pro Lys Lys Thr Val Xaa Ser Arg Leu Glu Trp Lys
    50                  55                  60

Lys Leu Gly Arg Ser Val Ser Phe Val Tyr Tyr Gln Gln Thr Leu Gln
65                  70                  75                  80

Gly Asp Phe Lys Asn Arg Ala Glu Met Ile Asp Phe Asn Ile Arg Ile
                85                  90                  95

Lys Asn Val Thr Arg Ser Asp Ala Gly Lys Tyr Arg Cys Glu Val Ser
```

```
            100                 105                 110

Ala Pro Ser Glu Gln Gly Gln Asn Leu Glu Glu Asp Thr Val Thr Leu
        115                 120                 125

Glu Val Leu Val Ala Pro Ala Val Pro Ser Cys Glu Val Pro Ser Ser
    130                 135                 140

Ala Leu Ser Gly Thr Val Val Glu Leu Arg Cys Gln Asp Lys Glu Gly
145                 150                 155                 160

Asn Pro Ala Pro Glu Tyr Thr Trp Phe Lys Asp Gly Ile Arg Leu Leu
                165                 170                 175

Glu Asn Pro Arg Leu Gly Ser Gln Ser Thr Asn Ser Ser Tyr Thr Met
            180                 185                 190

Asn Thr Lys Thr Gly Thr Leu Gln Phe Asn Thr Val Ser Lys Leu Asp
        195                 200                 205

Thr Gly Glu Tyr Ser Cys Glu Ala Arg Asn Ser Val Gly Tyr Arg Arg
    210                 215                 220

Cys Pro Gly Lys Arg Met Gln Val Asp Asp Leu Asn Ile Ser Gly Ile
225                 230                 235                 240

Ile Ala Ala Val Val Val Val Ala Leu Val Ile Ser Val Cys Gly Leu
                245                 250                 255

Gly Val Cys Tyr Ala Gln Arg Lys Gly Tyr Phe Ser Lys Glu Thr Ser
            260                 265                 270

Phe Gln Lys Ser Asn Ser Ser Ser Lys Ala Thr Thr Met Ser Glu Asn
        275                 280                 285

Asp Phe Lys His Thr Lys Ser Phe Ile Ile
    290                 295
```

<210> 77
<211> 856
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (52)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (190)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (233)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (595)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (683)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 77
Met Asp Ile Ser Lys Gly Leu Pro Gly Met Gln Gly Gly Leu His Ile
1 5 10 15

Trp Ile Ser Glu Asn Arg Lys Met Val Pro Val Pro Glu Gly Ala Tyr
20 25 30

Gly Asn Phe Phe Glu Glu His Cys Tyr Val Ile Leu His Val Pro Gln
35 40 45

Ser Pro Lys Xaa Thr Gln Gly Ala Ser Ser Asp Leu His Tyr Trp Val
50 55 60

Gly Lys Gln Ala Gly Ala Glu Ala Gln Gly Ala Ala Glu Ala Phe Gln
65 70 75 80

Gln Arg Leu Gln Asp Glu Leu Gly Gly Gln Thr Val Leu His Arg Glu
85 90 95

Ala Gln Gly His Glu Ser Asp Cys Phe Cys Ser Tyr Phe Arg Pro Gly
100 105 110

Ile Ile Tyr Arg Lys Gly Gly Leu Ala Ser Asp Leu Lys His Val Glu
115 120 125

Thr Asn Leu Phe Asn Ile Gln Arg Leu Leu His Ile Lys Gly Arg Lys
130 135 140

His Val Ser Ala Thr Glu Val Glu Leu Ser Trp Asn Ser Phe Asn Lys
145 150 155 160

Gly Asp Ile Phe Leu Leu Asp Leu Gly Lys Met Met Ile Gln Trp Asn
165 170 175

Gly Pro Lys Thr Ser Ile Ser Glu Lys Ala Arg Gly Leu Xaa Leu Thr
180 185 190

Tyr Ser Leu Arg Asp Arg Glu Arg Gly Gly Gly Arg Ala Gln Ile Gly
195 200 205

Val Val Asp Asp Glu Ala Lys Ala Pro Asp Leu Met Gln Ile Met Glu
210 215 220

Ala Val Leu Gly Arg Arg Val Gly Xaa Leu Arg Ala Ala Thr Pro Ser
225 230 235 240

Lys Asp Ile Asn Gln Leu Gln Lys Ala Asn Val Arg Leu Tyr His Val

245 250 255

Tyr Glu Lys Gly Lys Asp Leu Val Val Leu Glu Leu Ala Thr Pro Pro
260 265 270

Leu Thr Gln Asp Leu Leu Gln Glu Glu Asp Phe Tyr Ile Leu Asp Gln
275 280 285

Gly Gly Phe Lys Ile Tyr Val Trp Gln Gly Arg Met Ser Ser Leu Gln
290 295 300

Glu Arg Lys Ala Ala Phe Ser Arg Ala Val Gly Phe Ile Gln Ala Lys
305 310 315 320

Gly Tyr Pro Thr Tyr Thr Asn Val Glu Val Val Asn Asp Gly Ala Glu
325 330 335

Ser Ala Ala Phe Lys Gln Leu Phe Arg Thr Trp Ser Glu Lys Arg Arg
340 345 350

Arg Asn Gln Lys Leu Gly Gly Arg Asp Lys Ser Ile His Val Lys Leu
355 360 365

Asp Val Gly Lys Leu His Thr Gln Pro Lys Leu Ala Ala Gln Leu Arg
370 375 380

Met Val Asp Asp Gly Ser Gly Lys Val Glu Val Trp Cys Ile Gln Asp
385 390 395 400

Leu His Arg Gln Pro Val Asp Pro Lys Arg His Gly Gln Leu Cys Ala
405 410 415

Gly Asn Cys Tyr Leu Val Leu Tyr Thr Tyr Gln Arg Leu Gly Arg Val
420 425 430

Gln Tyr Ile Leu Tyr Leu Trp Gln Gly His Gln Ala Thr Ala Asp Glu
435 440 445

Ile Glu Ala Leu Asn Ser Asn Ala Glu Glu Leu Asp Val Met Tyr Gly
450 455 460

Gly Val Leu Val Gln Glu His Val Thr Met Gly Ser Glu Pro Pro His
465 470 475 480

Phe Leu Ala Ile Phe Gln Gly Gln Leu Val Ile Phe Gln Glu Arg Ala
485 490 495

Gly His His Gly Lys Gly Gln Ser Ala Ser Thr Thr Arg Leu Phe Gln
500 505 510

Val Gln Gly Thr Asp Ser His Asn Thr Arg Thr Met Glu Val Pro Ala
515 520 525

Arg Ala Ser Ser Leu Asn Ser Ser Asp Ile Phe Leu Leu Val Thr Ala
530 535 540

Ser Val Cys Tyr Leu Trp Phe Gly Lys Gly Cys Asn Gly Asp Gln Arg
545 550 555 560

Glu Met Ala Arg Val Val Val Thr Val Ile Ser Arg Lys Asn Glu Glu
565 570 575

Thr Val Leu Glu Gly Gln Glu Pro Pro His Phe Trp Glu Ala Leu Gly
580 585 590

Gly Arg Xaa Pro Tyr Pro Ser Asn Lys Arg Leu Pro Glu Glu Val Pro
595 600 605

Ser Phe Gln Pro Arg Leu Phe Glu Cys Ser Ser His Met Gly Cys Leu
610 615 620

Val Leu Ala Glu Val Gly Phe Phe Ser Gln Glu Asp Leu Asp Lys Tyr
625 630 635 640

Asp Ile Met Leu Leu Asp Thr Trp Gln Glu Ile Phe Leu Trp Leu Gly
645 650 655

Glu Ala Ala Ser Glu Trp Lys Glu Ala Val Ala Trp Gly Gln Glu Tyr
660 665 670

Leu Lys Thr His Pro Ala Gly Arg Ser Pro Xaa Thr Pro Ile Val Leu
675 680 685

Val Lys Gln Gly His Glu Pro Pro Thr Phe Ile Gly Trp Phe Phe Thr
690 695 700

Trp Asp Pro Tyr Lys Trp Thr Ser His Pro Ser His Lys Glu Val Val
705 710 715 720

Asp Gly Ser Pro Ala Ala Ala Ser Thr Ile Ser Glu Ile Thr Ala Glu
725 730 735

Val Asn Asn Phe Arg Leu Ser Arg Trp Pro Gly Asn Gly Arg Ala Gly
740 745 750

Ala Val Ala Leu Gln Ala Leu Lys Gly Ser Gln Asp Ser Ser Glu Asn
755 760 765

Asp Leu Val Arg Ser Pro Lys Ser Ala Gly Ser Arg Thr Ser Ser Ser
770 775 780

Val Ser Ser Thr Ser Ala Thr Ile Asn Gly Gly Leu Arg Arg Glu Gln
785 790 795 800

Leu Met His Gln Ala Val Glu Asp Leu Pro Glu Gly Val Asp Pro Ala
805 810 815

Arg Arg Glu Phe Tyr Leu Ser Asp Ser Asp Phe Gln Asp Ile Phe Gly
820 825 830

Lys Ser Lys Glu Glu Phe Tyr Ser Met Ala Thr Trp Arg Gln Arg Gln
835 840 845

Glu Lys Lys Gln Leu Gly Phe Phe
850 855

<210> 78
<211> 39
<212> PRT
<213> Homo sapiens

<400> 78
Met Pro Cys Val Phe Cys Tyr Leu Leu Leu Leu Val Gln Phe Thr Tyr
1 5 10 15

Thr Phe Thr Leu Ser Asn Pro Asn Ser Ser Ser Arg Pro Asp Ser Asp
20 25 30

Phe Asn Phe Leu Lys Ala Ile
35

<210> 79
<211> 30
<212> PRT
<213> Homo sapiens

<400> 79
Met Ala Leu Ser Val Leu Val Leu Leu Leu Leu Ala Val Leu Tyr Glu
1 5 10 15

Gly Ile Lys Val Gly Lys Ala Ser Cys Ser Thr Arg Tyr Trp
20 25 30

<210> 80
<211> 45
<212> PRT
<213> Homo sapiens

<400> 80
Met Pro Ala Leu Val Leu Leu Pro Arg Val Leu Pro Pro Gly Gln Gly
1 5 10 15

Glu Val Gln Arg Val Arg Cys Pro Tyr Val Gly Asn Ser Ser Gly Arg
20 25 30

Lys Ile Trp Phe Gly Phe Ile Leu Arg Ala Ile Lys His
35 40 45

<210> 81
<211> 39
<212> PRT
<213> Homo sapiens

<400> 81
Met Glu Ala Lys Phe Gly Leu Leu Cys Phe Leu Val Ser Thr Pro Trp
1 5 10 15

Ala Glu Leu Leu Ser Leu Leu Leu His Leu Thr Gln Val Pro Phe Pro
20 25 30

Gly Ser Gln Gly Pro Gly Phe
35

<210> 82
<211> 36
<212> PRT
<213> Homo sapiens

<400> 82
Met Leu Ser Phe Lys Leu Leu Leu Ala Val Ala Leu Gly Phe Phe
1 5 10 15

Glu Gly Asp Ala Lys Phe Gly Glu Arg Asn Glu Gly Ser Gly Gln Gly
20 25 30

Gly Glu Gly Ala
35

<210> 83
<211> 293
<212> PRT
<213> Homo sapiens

<400> 83
Leu Ala Pro Leu Ile Ala Leu Val Tyr Ser Val Pro Arg Leu Ser Arg
1 5 10 15

Trp Leu Ala Gln Pro Tyr Tyr Leu Leu Ser Ala Leu Leu Ser Ala Ala
20 25 30

Phe Leu Leu Val Arg Lys Leu Pro Pro Leu Cys His Gly Leu Pro Thr
35 40 45

Gln Arg Glu Asp Gly Asn Pro Cys Asp Phe Asp Trp Arg Glu Val Glu
50 55 60

Ile Leu Met Phe Leu Ser Ala Ile Val Met Met Lys Asn Arg Arg Ser
65 70 75 80

Ile Thr Val Glu Gln His Ile Gly Asn Ile Phe Met Phe Ser Lys Val
85 90 95

Ala Asn Thr Ile Leu Phe Phe Arg Leu Asp Ile Arg Met Gly Leu Leu
100 105 110

Tyr Ile Thr Leu Cys Ile Val Phe Leu Met Thr Cys Lys Pro Pro Leu
115 120 125

Tyr Met Gly Pro Glu Tyr Ile Lys Tyr Phe Asn Asp Lys Thr Ile Asp
130 135 140

Glu Glu Leu Glu Arg Asp Lys Arg Val Thr Trp Ile Val Glu Phe Phe
145 150 155 160

Ala Asn Trp Ser Asn Asp Cys Gln Ser Phe Ala Pro Ile Tyr Ala Asp
165 170 175

```
Leu Ser Leu Lys Tyr Asn Cys Thr Gly Leu Asn Phe Gly Lys Val Asp
            180                 185                 190

Val Gly Arg Tyr Thr Asp Val Ser Thr Arg Tyr Lys Val Ser Thr Ser
        195                 200                 205

Pro Leu Thr Lys Gln Leu Pro Thr Leu Ile Leu Phe Gln Gly Gly Lys
    210                 215                 220

Glu Ala Met Arg Arg Pro Gln Ile Asp Lys Lys Gly Arg Ala Val Ser
225                 230                 235                 240

Trp Thr Phe Ser Glu Glu Asn Val Ile Arg Glu Phe Asn Leu Asn Glu
                245                 250                 255

Leu Tyr Gln Arg Ala Lys Lys Leu Ser Lys Ala Gly Asp Asn Ile Pro
            260                 265                 270

Glu Glu Gln Pro Val Ala Ser Thr Pro Thr Thr Val Ser Asp Gly Glu
        275                 280                 285

Asn Lys Lys Asp Lys
    290
```

<210> 84
<211> 143
<212> PRT
<213> Homo sapiens

<400> 84

```
Met Arg Gly Leu Gly Leu Trp Leu Leu Gly Ala Met Met Leu Pro Ala
  1               5                  10                  15

Ile Ala Pro Ser Arg Pro Trp Ala Leu Met Glu Gln Tyr Glu Val Val
            20                  25                  30

Leu Pro Trp Arg Leu Pro Gly Pro Arg Val Arg Arg Ala Leu Pro Ser
        35                  40                  45

His Leu Gly Leu His Pro Glu Arg Val Ser Tyr Val Leu Gly Ala Thr
    50                  55                  60

Gly His Asn Phe Thr Leu His Leu Arg Lys Asn Arg Asp Leu Leu Gly
65                  70                  75                  80

Ser Gly Tyr Thr Glu Thr Tyr Thr Ala Ala Asn Gly Ser Glu Val Thr
                85                  90                  95

Glu Gln Pro Arg Gly Gln Asp His Cys Phe Tyr Gln Gly His Leu Glu
            100                 105                 110

Gly Thr Gly Leu Ser Arg Gln Pro Gln His Leu Cys Arg Pro Gln Gly
        115                 120                 125

Phe Leu Pro Gly Gly Val Arg Pro Ala Pro Asp Arg Ala Pro Gly
    130                 135                 140
```

<210> 85
<211> 121
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (67)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (89)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 85
Met Arg Ile Met Leu Leu Phe Thr Ala Ile Leu Ala Phe Ser Leu Ala
1 5 10 15

Gln Ser Phe Gly Ala Val Cys Lys Glu Pro Gln Glu Glu Val Val Pro
20 25 30

Gly Gly Gly Arg Ser Lys Arg Asp Pro Asp Leu Tyr Gln Leu Leu Gln
35 40 45

Arg Leu Phe Lys Ser His Ser Ser Leu Glu Gly Leu Leu Lys Ala Leu
50 55 60

Ser Gln Xaa Ser Thr Asp Pro Lys Glu Ser Thr Ser Pro Glu Lys Arg
65 70 75 80

Asp Met His Asp Phe Phe Val Gly Xaa Met Gly Lys Arg Ser Val Gln
85 90 95

Pro Asp Ser Pro Thr Asp Val Asn Gln Glu Asn Val Pro Ser Phe Gly
100 105 110

Ile Leu Lys Tyr Pro Pro Arg Ala Glu
115 120

<210> 86
<211> 25
<212> PRT
<213> Homo sapiens

<400> 86
Met Val Leu Leu Met Val Trp Val Val Met Ala Val Val Val Glu Ala
1 5 10 15

Val Glu Val Thr Met Gly Lys Ala Ala
20 25

<210> 87
<211> 4

<212> PRT
<213> Homo sapiens

<400> 87
Ser Leu His Ala
1

<210> 88
<211> 235
<212> PRT
<213> Homo sapiens

<400> 88
Met Pro Trp Val Leu Leu Leu Leu Thr Leu Leu Thr His Ser Ala Val
1 5 10 15

Ser Val Val Gln Ala Gly Leu Thr Gln Pro Pro Ser Val Ser Lys Asp
20 25 30

Leu Arg Gln Thr Ala Thr Leu Thr Cys Thr Gly Asn Asn Asn Asn Val
35 40 45

Gly Asp Gln Gly Ala Ala Trp Leu Gln Gln His Gln Gly His Pro Pro
50 55 60

Lys Leu Leu Ser Tyr Arg Asn Asn Asn Arg Pro Ser Gly Ile Ser Glu
65 70 75 80

Arg Leu Ser Ala Ser Arg Ser Gly Ala Thr Ser Ser Leu Thr Ile Thr
85 90 95

Gly Leu Gln Pro Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Tyr Asp
100 105 110

Ser Ser Leu Ala Val Trp Met Phe Gly Gly Gly Thr Lys Leu Thr Val
115 120 125

Leu Gly Gln Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser
130 135 140

Ser Glu Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser
145 150 155 160

Asp Phe Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser Ser
165 170 175

Pro Val Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln Ser Asn
180 185 190

Asn Lys Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp
195 200 205

Lys Ser His Lys Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr
210 215 220

Val Glu Lys Thr Val Ala Pro Thr Glu Cys Ser
225 230 235

<210> 89
<211> 87
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (11)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (86)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 89
Met Ser Leu Asn Val Leu Leu Ala Leu Phe Xaa Leu Leu Leu Ala Lys
1 5 10 15

Glu Ser Ser Cys Arg Ile Pro Ala Ala Arg Gly Asp Pro Leu Val Leu
20 25 30

Glu Arg Pro Pro Pro Arg Trp Glu Leu Gln Leu Leu Val Pro Phe Ser
35 40 45

Glu Gly Leu Ile Ser Ser Leu Ala Val Ile Met Gly His Ser Leu Phe
50 55 60

Pro Gly Val Glu Ile Gly Tyr Pro Ala His Lys Phe His Asn Asn Asn
65 70 75 80

Thr Ser Arg Lys His Xaa Val
85

<210> 90
<211> 106
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (22)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 90
Met Ala Leu His Gly Phe His Phe Asp Leu Phe His Phe His Leu Leu
1 5 10 15

Leu Phe Gln Leu Leu Xaa Leu Thr Pro Gln Cys Ser Leu Leu Gln Pro
20 25 30

Ala Leu Phe Leu Arg Ile Phe Leu Ile His Asp Ser Leu Leu Leu Cys
35 40 45

Ser Phe Phe Leu Leu Pro Pro Arg Leu Cys Cys Phe Leu Ser Leu His

50 55 60

Met Cys Gln Phe Gln Glu Val Leu Phe Tyr Ser Gly Thr Val Leu Ile
65 70 75 80

Cys Phe Leu Phe Ala Phe Ser Val Glu Ser Glu Leu Phe Gly Phe Ile
85 90 95

Asn Arg Ile Asn His His Val His Gln Gly
100 105

<210> 91
<211> 59
<212> PRT
<213> Homo sapiens

<400> 91
Met Tyr Ala Lys Cys Gln Lys Lys Leu Ala Pro Ala Trp Leu Ile Phe
1 5 10 15

Phe Ile Gly Gly Met Thr Arg Lys Ile Ile Leu Ala Pro Cys Leu Ser
20 25 30

Met Val Ala Ala Arg Gly Asn Asn Asn Asn Phe Gln Ser Lys Ala Asn
35 40 45

Cys Leu Asn Thr Cys Lys Asn Lys Arg Phe Pro
50 55

<210> 92
<211> 32
<212> PRT
<213> Homo sapiens

<400> 92
Met Glu Val Pro Ala Arg Ala Ser Ser Leu Asn Ser Ser Asp Ile Phe
1 5 10 15

Leu Leu Val Thr Ala Ser Val Cys Tyr Leu Trp Phe Gly Lys Gly Leu
20 25 30

<210> 93
<211> 178
<212> PRT
<213> Homo sapiens

<400> 93
Phe Ser Val Thr Asn Asn Thr Glu Cys Gly Lys Leu Leu Glu Glu Ile
1 5 10 15

Lys Cys Ala Leu Cys Ser Pro His Ser Gln Ser Leu Phe His Ser Pro
20 25 30

Glu Arg Glu Val Leu Glu Arg Asp Leu Val Leu Pro Leu Leu Cys Lys
35 40 45

Asp Tyr Cys Lys Glu Phe Phe Tyr Thr Cys Arg Gly His Ile Pro Gly
50 55 60

Phe Leu Gln Thr Thr Ala Asp Glu Phe Cys Phe Tyr Tyr Ala Arg Lys
65 70 75 80

Asp Gly Gly Leu Cys Phe Pro Asp Phe Pro Arg Lys Gln Val Arg Gly
85 90 95

Pro Ala Ser Asn Tyr Leu Asp Gln Met Glu Glu Tyr Asp Lys Val Glu
100 105 110

Glu Ile Ser Arg Lys His Lys His Asn Cys Phe Cys Ile Gln Glu Val
115 120 125

Val Ser Gly Leu Arg Gln Pro Val Gly Ala Leu His Ser Gly Asp Gly
130 135 140

Ser Gln Arg Leu Phe Ile Leu Glu Lys Glu Gly Tyr Val Lys Ile Leu
145 150 155 160

Thr Pro Glu Gly Glu Ile Phe Lys Glu Pro Tyr Leu Asp Ile His Lys
165 170 175

Leu Val

<210> 94
<211> 216
<212> PRT
<213> Homo sapiens

<400> 94
Asp Gly Asn Pro Cys Asp Phe Asp Trp Arg Glu Val Glu Ile Leu Met
1 5 10 15

Phe Leu Ser Ala Ile Val Met Met Lys Asn Arg Arg Ser Ile Thr Val
20 25 30

Glu Gln His Ile Gly Asn Ile Phe Met Phe Ser Lys Val Ala Asn Thr
35 40 45

Ile Leu Phe Phe Arg Leu Asp Ile Arg Met Gly Leu Leu Tyr Ile Thr
50 55 60

Leu Cys Ile Val Phe Leu Met Thr Cys Lys Pro Pro Leu Tyr Met Gly
65 70 75 80

Pro Glu Tyr Ile Lys Tyr Phe Asn Asp Lys Thr Ile Asp Glu Glu Leu
85 90 95

Glu Arg Asp Lys Arg Val Thr Trp Ile Val Glu Phe Phe Ala Asn Trp
100 105 110

```
Ser Asn Asp Cys Gln Ser Phe Ala Pro Ile Tyr Ala Asp Leu Ser Leu
        115                 120                 125

Lys Tyr Asn Cys Thr Gly Leu Asn Phe Gly Lys Val Asp Val Gly Arg
    130                 135                 140

Tyr Thr Asp Val Ser Thr Arg Tyr Lys Val Ser Thr Ser Pro Leu Thr
145                 150                 155                 160

Lys Gln Leu Pro Thr Leu Ile Leu Phe Gln Gly Gly Lys Glu Ala Met
                165                 170                 175

Arg Arg Pro Gln Ile Asp Lys Lys Gly Arg Ala Val Ser Trp Thr Phe
            180                 185                 190

Ser Glu Glu Asn Val Ile Arg Glu Phe Asn Leu Asn Glu Leu Tyr Gln
        195                 200                 205

Arg Ala Lys Lys Leu Ser Lys Ala
    210                 215
```

<210> 95
<211> 196
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (141)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 95

```
Gln Leu Ile Val Thr Ala Arg Thr Thr Arg Gly Leu Asp Pro Leu Phe
  1               5                  10                  15

Gly Met Cys Glu Lys Phe Leu Gln Glu Val Asp Phe Phe Gln Arg Tyr
            20                  25                  30

Phe Ile Ala Asp Leu Pro His Leu Gln Asp Ser Phe Val Asp Lys Leu
        35                  40                  45

Leu Asp Leu Met Pro Arg Leu Met Thr Ser Lys Pro Ala Glu Val Val
    50                  55                  60

Lys Ile Leu Gln Thr Met Leu Arg Gln Ser Ala Phe Leu His Leu Pro
65                  70                  75                  80

Leu Pro Glu Gln Ile His Lys Ala Ser Ala Thr Ile Ile Glu Pro Ala
                85                  90                  95

Gly Glu Phe Arg Gln Pro Phe Ala Val Tyr Leu Trp Val Gly Gly Cys
            100                 105                 110

Pro Gly Met Leu Met Gln Pro Trp Ser Met Cys Arg Ile Leu Arg Thr
        115                 120                 125
```

```
Leu Leu Arg Ser Arg Val Leu Tyr Pro Asp Gly Gln Xaa Ser Asp Asp
    130                 135                 140

Ser Pro Gln Ala Cys Arg Leu Pro Glu Ser Trp Pro Arg Ala Ala Pro
145                 150                 155                 160

Ala His His Ser Gly Leu Ser Leu Pro His Arg Leu Asp Arg Gly Met
                165                 170                 175

Pro Gly Gly Ser Glu Ala Ala Ala Gly Leu Gln Leu Gln Cys Ser His
            180                 185                 190

Ser Lys Met Pro
        195
```

<210> 96
<211> 255
<212> PRT
<213> Homo sapiens

<400> 96

```
Ile His Leu Ala Leu Val Glu Leu Leu Lys Asn Leu Thr Lys Tyr Pro
  1               5                  10                  15

Thr Asp Arg Asp Ser Ile Trp Lys Cys Leu Lys Phe Leu Gly Ser Arg
            20                  25                  30

His Pro Thr Leu Val Leu Pro Leu Val Pro Glu Leu Leu Ser Thr His
        35                  40                  45

Pro Phe Phe Asp Thr Ala Glu Pro Asp Met Asp Asp Pro Ala Tyr Ile
    50                  55                  60

Ala Val Leu Val Leu Ile Phe Asn Ala Ala Lys Thr Cys Pro Thr Met
65                  70                  75                  80

Pro Ala Leu Phe Ser Asp His Thr Phe Arg His Tyr Ala Tyr Leu Arg
                85                  90                  95

Asp Ser Leu Ser His Leu Val Pro Ala Leu Arg Leu Pro Gly Arg Lys
            100                 105                 110

Leu Val Ser Ser Ala Val Ser Pro Ser Ile Ile Pro Gln Glu Asp Pro
        115                 120                 125

Ser Gln Gln Phe Leu Gln Gln Ser Leu Glu Arg Val Tyr Ser Leu Gln
    130                 135                 140

His Leu Asp Pro Gln Gly Ala Gln Glu Leu Leu Glu Phe Thr Ile Arg
145                 150                 155                 160

Asp Leu Gln Arg Leu Gly Glu Leu Gln Ser Glu Leu Ala Gly Val Ala
                165                 170                 175

Asp Phe Ser Ala Thr Tyr Leu Arg Cys Gln Leu Leu Leu Ile Lys Ala
            180                 185                 190
```

```
Leu Gln Glu Lys Leu Trp Asn Val Ala Ala Pro Leu Tyr Leu Lys Gln
        195                 200                 205

Ser Asp Leu Ala Ser Ala Ala Ala Lys Gln Ile Met Glu Glu Thr Tyr
    210                 215                 220

Lys Met Glu Phe Met Tyr Ser Gly Val Glu Asn Lys Gln Val Val Ile
225                 230                 235                 240

Ile His His Met Arg Leu Gln Ala Lys Ala Leu Gln Leu Ile Val
                245                 250                 255
```

<210> 97
<211> 137
<212> PRT
<213> Homo sapiens

<400> 97

```
Arg Phe Tyr Ser Asn Ser Cys Cys Leu Cys Cys His Val Arg Thr Gly
  1               5                  10                  15

Thr Ile Leu Leu Gly Val Trp Tyr Leu Ile Ile Asn Ala Val Val Leu
            20                  25                  30

Leu Ile Leu Leu Ser Ala Leu Ala Asp Pro Asp Gln Tyr Asn Phe Ser
        35                  40                  45

Ser Ser Glu Leu Gly Gly Asp Phe Glu Phe Met Asp Asp Ala Asn Met
    50                  55                  60

Cys Ile Ala Ile Ala Ile Ser Leu Leu Met Ile Leu Ile Cys Ala Met
65                  70                  75                  80

Ala Thr Tyr Gly Ala Tyr Lys Gln Arg Ala Ala Gly Ile Ile Pro Phe
                85                  90                  95

Phe Cys Tyr Gln Ile Phe Asp Phe Ala Leu Asn Met Leu Val Ala Ile
            100                 105                 110

Thr Val Leu Ile Tyr Pro Asn Ser Ile Gln Glu Tyr Ile Arg Gln Leu
        115                 120                 125

Pro Pro Asn Phe Pro Tyr Arg Asp Asp
    130                 135
```

<210> 98
<211> 87
<212> PRT
<213> Homo sapiens

<400> 98

```
Phe Pro Thr Glu Met Met Ser Cys Ala Val Asn Pro Thr Cys Leu Val
  1               5                  10                  15

Leu Ile Ile Leu Leu Phe Ile Ser Ile Ile Leu Thr Phe Lys Gly Tyr
            20                  25                  30
```

```
Leu Ile Ser Cys Val Trp Asn Cys Tyr Arg Tyr Ile Asn Gly Arg Asn
          35                  40                  45

Ser Ser Asp Val Leu Val Tyr Val Thr Ser Asn Asp Thr Thr Val Leu
      50                  55                  60

Leu Pro Pro Tyr Asp Asp Ala Thr Val Asn Gly Ala Ala Lys Glu Pro
 65                  70                  75                  80

Pro Pro Pro Tyr Val Ser Ala
                 85
```

<210> 99
<211> 97
<212> PRT
<213> Homo sapiens

```
<400> 99
Ile Ala Pro Ser Arg Pro Trp Ala Leu Met Glu Gln Tyr Glu Val Val
  1               5                  10                  15

Leu Pro Trp Arg Leu Pro Gly Pro Arg Val Arg Arg Ala Leu Pro Ser
             20                  25                  30

His Leu Gly Leu His Pro Glu Arg Val Ser Tyr Val Leu Gly Ala Thr
          35                  40                  45

Gly His Asn Phe Thr Leu His Leu Arg Lys Asn Arg Asp Leu Leu Gly
      50                  55                  60

Ser Gly Tyr Thr Glu Thr Tyr Thr Ala Ala Asn Gly Ser Glu Val Thr
 65                  70                  75                  80

Glu Gln Pro Arg Gly Gln Asp His Cys Phe Tyr Gln Gly His Leu Glu
                 85                  90                  95

Gly
```

<210> 100
<211> 240
<212> PRT
<213> Homo sapiens

```
<400> 100
Pro Asp Ser Ala Ala Ser Leu Ser Thr Cys Ala Gly Leu Arg Gly Phe
  1               5                  10                  15

Phe Gln Val Gly Ser Asp Leu His Leu Ile Glu Pro Leu Asp Glu Gly
             20                  25                  30

Gly Glu Gly Gly Arg His Ala Val Tyr Gln Ala Glu His Leu Leu Gln
          35                  40                  45

Thr Ala Gly Thr Cys Gly Val Ser Asp Asp Ser Leu Gly Ser Leu Leu
```

```
     50                  55                  60

Gly Pro Arg Thr Ala Ala Val Phe Arg Pro Arg Pro Gly Asp Ser Leu
 65                  70                  75                  80

Pro Ser Arg Glu Thr Arg Tyr Val Glu Leu Tyr Val Val Val Asp Asn
                 85                  90                  95

Ala Glu Phe Gln Met Leu Gly Ser Glu Ala Ala Val Arg His Arg Val
            100                 105                 110

Leu Glu Val Val Asn His Val Asp Lys Leu Tyr Gln Lys Leu Asn Phe
        115                 120                 125

Arg Val Val Leu Val Gly Leu Glu Ile Trp Asn Ser Gln Asp Arg Phe
    130                 135                 140

His Val Ser Pro Asp Pro Ser Val Thr Leu Glu Asn Leu Leu Thr Trp
145                 150                 155                 160

Gln Ala Arg Gln Arg Thr Arg Arg His Leu His Asp Asn Val Gln Leu
                165                 170                 175

Ile Thr Gly Val Asp Phe Thr Gly Thr Thr Val Gly Phe Ala Arg Val
            180                 185                 190

Ser Ala Met Cys Ser His Ser Ser Gly Ala Val Asn Gln Asp His Ser
        195                 200                 205

Lys Asn Pro Val Gly Val Ala Cys Thr Met Ala His Glu Met Gly His
    210                 215                 220

Asn Leu Gly Met Asp His Asp Glu Asn Val Gln Gly Cys Arg Cys Gln
225                 230                 235                 240
```

<210> 101
<211> 118
<212> PRT
<213> Homo sapiens

<400> 101

```
Phe Glu Ala Gly Arg Cys Ile Met Ala Arg Pro Ala Leu Ala Pro Ser
  1               5                  10                  15

Phe Pro Arg Met Phe Ser Asp Cys Ser Gln Ala Tyr Leu Glu Ser Phe
            20                  25                  30

Leu Glu Arg Pro Gln Ser Val Cys Leu Ala Asn Ala Pro Asp Leu Ser
        35                  40                  45

His Leu Val Gly Gly Pro Val Cys Gly Asn Leu Phe Val Glu Arg Gly
    50                  55                  60

Glu Gln Cys Asp Cys Gly Pro Pro Glu Asp Cys Arg Asn Arg Cys Cys
```

65 70 75 80

Asn Ser Thr Thr Cys Gln Leu Ala Glu Gly Ala Gln Cys Ala His Gly
85 90 95

Thr Cys Cys Gln Glu Cys Lys Val Lys Pro Ala Gly Glu Leu Cys Arg
100 105 110

Pro Lys Lys Asp Met Cys
115

<210> 102
<211> 471
<212> PRT
<213> Homo sapiens

<400> 102
Gly Ser Gln Glu Glu Arg Phe Ala Pro Gly Trp Asn Arg Asp Tyr Pro
1 5 10 15

Pro Pro Pro Leu Lys Ser His Ala Gln Glu Arg His Ser Gly Asn Phe
20 25 30

Pro Gly Arg Asp Ser Leu Pro Phe Asp Phe Gln Gly His Ser Gly Pro
35 40 45

Pro Phe Ala Asn Val Glu Glu His Ser Phe Ser Tyr Gly Ala Arg Asp
50 55 60

Gly Pro His Gly Asp Tyr Arg Gly Gly Glu Gly Pro Gly His Asp Phe
65 70 75 80

Arg Gly Gly Asp Phe Ser Ser Ser Asp Phe Gln Ser Arg Asp Ser Ser
85 90 95

Gln Leu Asp Phe Arg Gly Arg Asp Ile His Ser Gly Asp Phe Arg Asp
100 105 110

Arg Glu Gly Pro Pro Met Asp Tyr Arg Gly Gly Asp Gly Thr Ser Met
115 120 125

Asp Tyr Arg Gly Arg Glu Ala Pro His Met Asn Tyr Arg Asp Arg Asp
130 135 140

Ala His Ala Val Asp Phe Arg Gly Arg Asp Ala Pro Pro Ser Asp Phe
145 150 155 160

Arg Gly Arg Gly Thr Tyr Asp Leu Asp Phe Arg Gly Arg Asp Gly Ser
165 170 175

His Ala Asp Phe Arg Gly Arg Asp Leu Ser Asp Leu Asp Phe Arg Ala
180 185 190

Arg Glu Gln Ser Arg Ser Asp Phe Arg Asn Arg Asp Val Ser Asp Leu
195 200 205

Asp Phe Arg Asp Lys Asp Gly Thr Gln Val Asp Phe Arg Gly Arg Gly

```
    210                 215                 220

Ser Gly Thr Thr Asp Leu Asp Phe Arg Asp Arg Asp Thr Pro His Ser
225                 230                 235                 240

Asp Phe Arg Gly Arg His Arg Ser Arg Thr Asp Gln Asp Phe Arg Gly
                245                 250                 255

Arg Glu Met Gly Ser Cys Met Glu Phe Lys Asp Arg Glu Met Pro Pro
            260                 265                 270

Val Asp Pro Asn Ile Leu Asp Tyr Ile Gln Pro Ser Thr Gln Asp Arg
        275                 280                 285

Glu His Ser Gly Met Asn Val Asn Arg Arg Glu Glu Ser Thr His Asp
    290                 295                 300

His Thr Ile Glu Arg Pro Ala Phe Gly Ile Gln Lys Gly Glu Phe Glu
305                 310                 315                 320

His Ser Glu Thr Arg Glu Gly Glu Thr Gln Gly Val Ala Phe Glu His
                325                 330                 335

Glu Ser Pro Ala Asp Phe Gln Asn Ser Gln Ser Pro Val Gln Asp Gln
            340                 345                 350

Asp Lys Ser Gln Leu Ser Gly Arg Glu Glu Gln Ser Ser Asp Ala Gly
        355                 360                 365

Leu Phe Lys Glu Glu Gly Gly Leu Asp Phe Leu Gly Arg Gln Asp Thr
    370                 375                 380

Asp Tyr Arg Ser Met Glu Tyr Arg Asp Val Asp His Arg Leu Pro Gly
385                 390                 395                 400

Ser Gln Met Phe Gly Tyr Gly Gln Ser Lys Ser Phe Pro Glu Gly Lys
                405                 410                 415

Thr Ala Arg Asp Ala Gln Arg Asp Leu Gln Asp Gln Asp Tyr Arg Thr
            420                 425                 430

Gly Pro Ser Glu Glu Lys Pro Ser Arg Leu Ile Arg Leu Ser Gly Val
        435                 440                 445

Pro Glu Asp Ala Thr Lys Glu Glu Ile Leu Asn Ala Phe Arg Thr Pro
    450                 455                 460

Asp Gly Met Pro Val Lys Asn
465                 470


<210> 103
<211> 125
<212> PRT
<213> Homo sapiens

<400> 103
Gly Leu Gln Asp Ser Ala Arg Gly Gly Ser Gln Glu Glu Arg Phe Ala
```

```
 1               5                  10                  15

Pro Gly Trp Asn Arg Asp Tyr Pro Pro Pro Pro Leu Lys Ser His Ala
            20                  25                  30

Gln Glu Arg His Ser Gly Asn Phe Pro Gly Arg Asp Ser Leu Pro Phe
        35                  40                  45

Asp Phe Gln Gly His Ser Gly Pro Pro Phe Ala Asn Val Glu Glu His
    50                  55                  60

Ser Phe Ser Tyr Gly Ala Arg Asp Gly Pro His Gly Asp Tyr Arg Gly
65                  70                  75                  80

Gly Glu Gly Pro Gly His Asp Phe Arg Gly Gly Asp Phe Ser Ser Ser
                85                  90                  95

Asp Phe Gln Ser Arg Asp Ser Ser Gln Leu Asp Phe Arg Gly Arg Asp
            100                 105                 110

Ile His Ser Gly Asp Phe Arg Asp Arg Glu Gly Pro Pro
        115                 120                 125
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<210> 104
<211> 330
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (7)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (147)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<222> (181)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (190)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (260)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 104

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Met Leu Pro Asp Trp Lys Xaa Ser Leu Ile Leu Met Ala Tyr Ile Ile
 1               5                  10                  15
```

Ile Phe Leu Thr Gly Leu Pro Ala Asn Leu Leu Ala Leu Arg Ala Phe
20 25 30

Val Gly Arg Ile Arg Gln Pro Gln Pro Ala Pro Val His Ile Leu Leu
35 40 45

Leu Ser Leu Thr Leu Ala Asp Leu Leu Leu Leu Leu Leu Leu Pro Phe
50 55 60

Lys Ile Ile Glu Ala Ala Ser Asn Phe Arg Trp Tyr Leu Pro Lys Val
65 70 75 80

Val Cys Ala Leu Thr Ser Phe Gly Phe Tyr Ser Ser Ile Tyr Cys Ser
85 90 95

Thr Trp Leu Leu Ala Gly Ile Ser Ile Glu Arg Tyr Leu Gly Val Ala
100 105 110

Phe Pro Val Gln Tyr Lys Leu Ser Arg Arg Pro Leu Tyr Gly Val Ile
115 120 125

Ala Ala Leu Val Ala Trp Val Met Ser Phe Gly His Cys Thr Ile Val
130 135 140

Ile Ile Xaa Gln Tyr Leu Asn Thr Thr Glu Gln Val Arg Ser Gly Asn
145 150 155 160

Glu Ile Thr Cys Tyr Glu Asn Phe Thr Asp Asn Gln Leu Asp Val Val
165 170 175

Leu Pro Val Arg Xaa Glu Leu Cys Leu Val Leu Phe Phe Xaa Pro Met
180 185 190

Ala Val Thr Ile Phe Cys Tyr Trp Arg Phe Val Trp Ile Met Leu Ser
195 200 205

Gln Pro Leu Val Gly Ala Gln Arg Arg Arg Arg Ala Val Gly Leu Ala
210 215 220

Val Val Thr Leu Leu Asn Phe Leu Val Cys Phe Gly Pro Tyr Asn Val
225 230 235 240

Ser His Leu Val Gly Tyr His Gln Arg Lys Ser Pro Trp Trp Arg Ser
245 250 255

Ile Ala Val Xaa Phe Ser Ser Leu Asn Ala Ser Leu Asp Pro Leu Leu
260 265 270

Phe Tyr Phe Ser Ser Ser Val Val Arg Arg Ala Phe Gly Arg Gly Leu
275 280 285

Gln Val Leu Arg Asn Gln Gly Ser Ser Leu Leu Gly Arg Arg Gly Lys
290 295 300

Asp Thr Ala Glu Gly Thr Asn Glu Asp Arg Gly Val Gly Gln Gly Glu
305 310 315 320

Gly Met Pro Ser Ser Asp Phe Thr Thr Glu

325 330

<210> 105
<211> 17
<212> PRT
<213> Homo sapiens

<400> 105
Cys Ser Thr Trp Leu Leu Ala Gly Ile Ser Ile Glu Arg Tyr Leu Gly
1 5 10 15

Val

<210> 106
<211> 94
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (7)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (41)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (50)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 106
Cys Thr Ile Val Ile Ile Xaa Gln Tyr Leu Asn Thr Thr Glu Gln Val
1 5 10 15

Arg Ser Gly Asn Glu Ile Thr Cys Tyr Glu Asn Phe Thr Asp Asn Gln
20 25 30

Leu Asp Val Val Leu Pro Val Arg Xaa Glu Leu Cys Leu Val Leu Phe
35 40 45

Phe Xaa Pro Met Ala Val Thr Ile Phe Cys Tyr Trp Arg Phe Val Trp
50 55 60

Ile Met Leu Ser Gln Pro Leu Val Gly Ala Gln Arg Arg Arg Arg Ala
65 70 75 80

Val Gly Leu Ala Val Val Thr Leu Leu Asn Phe Leu Val Cys
85 90

<210> 107
<211> 143

<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (25)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 107
Gly Leu Pro Ala Ala Arg Val Arg Trp Glu Ser Ser Phe Ser Arg Thr
1 5 10 15

Val Val Ala Pro Ser Ala Val Ala Xaa Lys Arg Pro Pro Glu Pro Thr
20 25 30

Thr Pro Trp Gln Glu Asp Pro Glu Pro Glu Asp Glu Asn Leu Tyr Glu
35 40 45

Lys Asn Pro Asp Ser His Gly Tyr Asp Lys Asp Pro Val Leu Asp Val
50 55 60

Trp Asn Met Arg Leu Val Phe Phe Phe Gly Val Ser Ile Ile Leu Val
65 70 75 80

Leu Gly Ser Thr Phe Val Ala Tyr Leu Pro Asp Tyr Arg Cys Thr Gly
85 90 95

Cys Pro Arg Ala Trp Asp Gly Met Lys Glu Trp Ser Arg Arg Glu Ala
100 105 110

Glu Arg Leu Val Lys Tyr Arg Glu Ala Asn Gly Leu Pro Ile Met Glu
115 120 125

Ser Asn Cys Phe Asp Pro Ser Lys Ile Gln Leu Pro Glu Asp Glu
130 135 140

<210> 108
<211> 36
<212> PRT
<213> Homo sapiens

<400> 108
Pro Glu Lys Arg Asp Met His Asp Phe Phe Val Gly Leu Met Gly Lys
1 5 10 15

Arg Ser Val Gln Pro Asp Ser Pro Thr Asp Val Asn Gln Glu Asn Val
20 25 30

Pro Ser Phe Gly
35

<210> 109
<211> 15
<212> PRT
<213> Homo sapiens

<400> 109
Lys Arg Asp Met His Asp Phe Phe Val Gly Leu Met Gly Lys Arg
1 5 10 15

<210> 110
<211> 10
<212> PRT
<213> Homo sapiens

<400> 110
Asp Met His Asp Phe Phe Val Gly Leu Met
1 5 10

<210> 111
<211> 16
<212> PRT
<213> Homo sapiens

<400> 111
Glu Trp Glu Ala Thr Glu Glu Met Glu Trp Ile Ile Arg Glu Ala Met
1 5 10 15

<210> 112
<211> 35
<212> PRT
<213> Homo sapiens

<400> 112
Trp Glu Trp Gly Thr Ile Thr Val Glu Asp Met Val Leu Leu Met Val
1 5 10 15

Trp Val Val Met Ala Val Val Val Glu Ala Val Glu Val Thr Met Gly
20 25 30

Lys Ala Ala
35

<210> 113
<211> 18
<212> PRT
<213> Homo sapiens

<400> 113
Gly Met Gly Gly Tyr Gly Arg Asp Gly Met Asp Asn Gln Gly Gly Tyr
1 5 10 15

Gly Ser

<210> 114

<211> 43
<212> PRT
<213> Homo sapiens

<400> 114
Gly Met Gly Asn Asn Tyr Ser Gly Gly Tyr Gly Thr Pro Asp Gly Leu
1 5 10 15

Gly Gly Tyr Gly Arg Gly Gly Gly Gly Ser Gly Gly Tyr Tyr Gly Gln
20 25 30

Gly Gly Met Ser Gly Gly Gly Trp Arg Gly Met
35 40

<210> 115
<211> 43
<212> PRT
<213> Homo sapiens

<400> 115
Gly Met Gly Asn Asn Tyr Ser Gly Gly Tyr Gly Thr Pro Asp Gly Leu
1 5 10 15

Gly Gly Tyr Gly Arg Gly Gly Gly Gly Ser Gly Gly Tyr Tyr Gly Gln
20 25 30

Gly Gly Met Ser Gly Gly Gly Trp Arg Gly Met
35 40

<210> 116
<211> 223
<212> PRT
<213> Homo sapiens

<400> 116
Trp Asp Ser Thr Thr Ser Trp Thr Thr Ile Trp Leu Gln Gln Arg Gly
1 5 10 15

Asn Ser Ser Val Leu Ser Arg Val Gly Asn Arg Ala Asn Gly Ile Thr
20 25 30

Leu Thr Met Asp Tyr Gln Gly Arg Ser Thr Gly Glu Ala Phe Val Gln
35 40 45

Phe Ala Ser Lys Glu Ile Ala Glu Asn Ala Leu Gly Lys His Lys Glu
50 55 60

Arg Ile Gly His Arg Tyr Ile Glu Ile Phe Arg Ser Ser Arg Ser Glu
65 70 75 80

Ile Lys Gly Phe Tyr Asp Pro Pro Arg Arg Leu Leu Gly Gln Arg Pro
85 90 95

Gly Pro Tyr Asp Arg Pro Ile Gly Gly Arg Gly Gly Tyr Tyr Gly Ala
100 105 110

```
Gly Arg Gly Ser Met Tyr Asp Arg Met Arg Arg Gly Gly Asp Gly Tyr
        115                 120                 125

Asp Gly Gly Tyr Gly Gly Phe Asp Asp Tyr Gly Gly Tyr Asn Asn Tyr
    130                 135                 140

Gly Tyr Gly Asn Asp Gly Phe Asp Asp Arg Met Arg Asp Gly Arg Gly
145                 150                 155                 160

Met Gly Gly His Gly Tyr Gly Gly Ala Gly Asp Ala Ser Ser Gly Phe
                165                 170                 175

His Gly Gly His Phe Val His Met Arg Gly Leu Pro Phe Arg Ala Thr
            180                 185                 190

Glu Asn Asp Ile Ala Asn Phe Phe Ser Pro Leu Asn Pro Ile Arg Val
        195                 200                 205

His Ile Asp Ile Gly Ala Asp Gly Arg Ala Gln Glu Lys Gln Met
    210                 215                 220
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<210> 117
<211> 26
<212> PRT
<213> Homo sapiens

<400> 117
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Phe Thr His Ser Phe Ile Leu Glu His Ala Phe Ser Leu Leu Ile Thr
  1               5                  10                  15

Leu Pro Val Ser Ser Trp Ala Ala Asn Asn
            20                  25
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<210> 118
<211> 384
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (20)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (63)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (66)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (187)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 118

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Met Met Ile Gln Trp Asn Gly Pro Lys Thr Ser Ile Ser Glu Lys Ala
 1               5                  10                  15

Arg Gly Leu Xaa Leu Thr Tyr Ser Leu Arg Asp Arg Glu Arg Gly Gly
            20                  25                  30

Gly Arg Ala Gln Ile Gly Val Val Asp Asp Glu Ala Lys Ala Pro Asp
        35                  40                  45

Leu Met Gln Ile Met Glu Ala Val Leu Gly Arg Arg Val Gly Xaa Leu
    50                  55                  60

Arg Xaa Ala Thr Pro Ser Lys Asp Ile Asn Gln Leu Gln Lys Ala Asn
65                  70                  75                  80

Val Arg Leu Tyr His Val Tyr Glu Lys Gly Lys Asp Leu Val Val Leu
                85                  90                  95

Glu Leu Ala Thr Pro Pro Leu Thr Gln Asp Leu Leu Gln Glu Glu Asp
            100                 105                 110

Phe Tyr Ile Leu Asp Gln Gly Gly Phe Lys Ile Tyr Val Trp Gln Gly
        115                 120                 125

Arg Met Ser Ser Leu Gln Glu Arg Lys Ala Ala Phe Ser Arg Ala Val
    130                 135                 140

Gly Phe Ile Gln Ala Lys Gly Tyr Pro Thr Tyr Thr Asn Val Glu Val
145                 150                 155                 160

Val Asn Asp Gly Ala Glu Ser Ala Ala Phe Lys Gln Leu Phe Arg Thr
                165                 170                 175

Trp Ser Glu Lys Arg Arg Arg Asn Gln Lys Xaa Gly Gly Arg Asp Lys
            180                 185                 190

Ser Ile His Val Lys Leu Asp Val Gly Lys Leu His Thr Gln Pro Lys
        195                 200                 205

Leu Ala Ala Gln Leu Arg Met Val Asp Asp Gly Ser Gly Lys Val Glu
    210                 215                 220

Val Trp Cys Ile Gln Asp Leu His Arg Gln Pro Val Asp Pro Lys Arg
225                 230                 235                 240

His Gly Gln Leu Cys Ala Gly Asn Cys Tyr Leu Val Leu Tyr Thr Tyr
                245                 250                 255

Gln Arg Leu Gly Arg Val Gln Tyr Ile Leu Tyr Leu Trp Gln Gly His
            260                 265                 270

Gln Ala Thr Ala Asp Glu Ile Glu Ala Leu Asn Ser Asn Ala Glu Glu
        275                 280                 285

Leu Asp Val Met Tyr Gly Gly Val Leu Val Gln Glu His Val Thr Met
```

290 295 300

Gly Ser Glu Pro Pro His Phe Leu Ala Ile Phe Gln Gly Gln Leu Val
305 310 315 320

Ile Phe Gln Glu Arg Ala Gly His His Gly Lys Gly Gln Ser Ala Ser
325 330 335

Thr Thr Arg Leu Phe Gln Val Gln Gly Thr Asp Ser His Asn Thr Arg
340 345 350

Thr Met Glu Val Pro Ala Arg Ala Ser Ser Leu Asn Ser Ser Asp Ile
355 360 365

Phe Leu Leu Val Thr Ala Ser Val Cys Tyr Leu Trp Phe Gly Lys Gly
370 375 380